SITE/SAFETY PROTOCOL

Shaeffer Electric
Superfund Immediate Removal

date
January 3, 1985

ORIGINAL
(Red)

GENERAL

This protocol addresses the safety procedures that will be followed by any and all personnel visiting the site or involved in the CERCLA removal activity at Shaffer Electric. All personnel entering the site shall read and sign this safety plan. The protocol will remain in effect until the OSC certifies that the activity is terminated. It does not supercede any Federal OSHA or State or local regulations but is in addition to them. In the event of a conflict between this protocol and a regulation, the more stringent of the two will be in force. The protocol is in accordance with and refers to the terminology used in the Office of Emergency and Remedial Response (OERR), Interim Standard Operating Safety Procedures (attached).

Since data available at the present time does not allow a complete characterization of the barrelled waste on the site, levels of protection for personnel will be set in accordance with the hazard of the job function and location on-site ~~as indicated on the attached diagram.~~

Respiratory Protection Program

All contractor and governmental personnel involved in on-site activities shall have a written respiratory protection program and prove that they are physically fit to wear a respirator. All personnel wearing air-purifying respirators on-site are required to be fit tested, while those wearing pressure-demand self-containing breathing apparatus or air-line apparatus, must be properly trained and experienced in their use. All respiratory protection equipment is to be properly decontaminated at the end of each workday.

Persons having beards or facial hair must not wear a respirator.

Training and Medical Monitoring Program

Personnel will have either formal training or on-the-job training for those tasks they are assigned to perform on the active site. All unfamiliar activities will be rehearsed beforehand.

All contractor and governmental personnel who are exposed to hazardous levels of chemicals shall prove that they are enrolled in a medical monitoring program.

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General Safety Rules and Equipment

a. There will be no eating, drinking or smoking in the Exclusion Area or hot side of the Contamination Reduction Area.

b. All personnel must pass through the Contamination Reduction Area to enter the Exclusion Area.

c. An emergency eye wash will be on the hot side of the Contamination Reduction Area.

d. As a minimum, an emergency deluge shower/spray can is to be located on the clean side of the Contamination Reduction Area.

e. At the end of the work, all personnel working in the Exclusion Area shall take a hygienic shower.

f. All supplied breathing air shall be certified as Grade D or better.

g. Where practical, all tools/equipment will be spark proof, explosion resistant and/or bonded and grounded.

h. Fire extinguishers will be on-site for equipment or personnel fires only.

i. Since site evacuation may be necessary if an explosion, fire, etc., occurs on-site, and individual shall be assigned to sound a horn. For example, the evacuation signal may be two long blasts every 30 seconds until all personnel are evacuated and accounted for. This procedure will be reviewed at each morning's safety meeting.

j. A first-aid kit will be on-scene at all times during operational hours. An oxygen inhalator respirator and a qualified operator will be available. The location of these items on-site will be posted.

k. Persons having beards or facial hair must not wear respirators.

l. No parking of non-essential vehicles inside of the fence line will be permitted since safety lanes may be obstructed.

m. No work will be performed in the exclusion area during hours of darkness as determined by the site safety officer.

Morning Safety Meeting

A morning safety meeting will be conducted each day for all site personnel who sign a daily attendance sheet. The safety procedures, evacuation procedures, and escape procedures, as well as the day's planned operations, should be discussed.

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CONTROL AT THE SITE

Access to the site will be restricted by a continuous ~~chain link fence~~ snow fence installed during the immediate removal phase at this site and exit from the site shall be through the gate in the ~~chain link~~ snow fence except in a life-threatening emergency.

All persons entering the site shall sign in and out at the OSC command post.

DESIGNATION OF WORK AREAS AT THE SITE

The entire site will be divided into three areas: (1) Exclusion Area which known to be or have a potential for becoming contaminated: (2) the Contamination Reduction Area where decontamination of personnel and equipment exiting the Exclusion Area is performed; (3) the Support Area which is not contaminated.

The Exclusion Area (EA)

At the Shaffer Electric Site, the Exclusion Area shall initially include all areas inside the ~~chain link~~ snow fence.

The Contamination Reduction Area (CRA)

At the Shaffer Electric Site, the Contamination Reduction Area will be located immediately outside the access gate and will be delineated by ~~roped off area.~~ a banner guarded area.

The Support Area (SA) / command post.

At the Shaffer Electric Site, the Support Area will be the area outside ~~chain link~~ snow fence not roped off.

Changes in Designation of Work Areas

As work progresses on-site, the OSC may determine that an area previously designated an EA is no longer classified in that manner. It is not intended, however, to change the designation of the CRA since this may involve the movement of the decontamination facilities and added expense.

SAFETY PROCEDURES AND LEVELS OF PROTECTION

Exclusion Area

1. All personnel shall enter and exit the Exclusion Area through the Contamination Reduction Area.

2. Emergency escape routes from the Exclusion Area will be established and reviewed as appropriate at each morning safety meeting.

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SAFETY PROCEDURES AND LEVELS OF PROTECTION (continued)

Exclusion Area

3. All personnel in the Exclusion Area shall use the protective equipment designated for their job function but in no case shall less than LEVEL C be used.

4. Personnel performing the following job functions in the Exclusion Area will utilize the designated level of protection equipment.

Prime Contractor

a. Barrel handling, including opening, sampling, pumping, moving, emptying, or any direct or indirect disturbance of a full-barrel will be performed in Level B. This applies to anyone involved, including equipment operators.

b. Excavation operations will be performed in Level ~~B~~ C.

c. Soil removal operations will be performed in Level ~~B~~ C. ~~due to the possibility of uncovering volatile materials.~~

d. Maintenance of filter fencing will be done in Level B unless photoionization detector readings are below 5 ppm in which case Level C can be used.

Contamination Reduction Area

1. Personnel and equipment decontamination will be performed in Level C.

2. All personnel entering the CRA will utilize a minimum of Level C protection.

3. All personnel entering the CRA must decontaminate will be performed in Level C.

4. All equipment entering the CRA must be decontaminated prior to leaving the CRA.

Support Area

1. No contaminated equipment or personnel may enter the Support Area.

2. Due to the proximity of the SA to the CRA, emergency escape masks will be available in the Support Area in case of a release of toxic vapor. Their location will be prominently posted in the area.

3. Except in the case of a release of a Toxic vapor, Level D will be appropriate for all personnel in the Support Area.

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Support Area (continued)

4. Emergency escape routes and procedures for the SA will be established and reviewed as appropriate at each morning safety meeting.

## DECONTAMINATION PROTOCOL

All equipment and personnel entering the site must be thoroughly decontaminated prior to leaving the gate. Since there are various protocol and equipment available for this purpose, the OSC will determine if the proposed decontamination techniques are applicable. Such determinations will be made on a day-to-day basis as on-site operations dictate.

## ON-SITE AIR MONITORING

Since Level C protection appears to applicable, a limited air monitoring program is necessary. Background data on the materials on-site indicates that the principle air problem will be from toxic organic compounds. ~~such as dichloroethylene~~. The following program will, therefore, be instituted to identify and quantitate these vapors.

Total vapor/gas air monitoring will be conducted as necessary ~~daily~~ with the photoionizer/OVA. The number of sampling stations and location will vary with atmospheric conditions. Generally, total vapor/gas readings will be taken at ground level, breathing zone, and near the surface of the suspected hazardous waste. Sample stations will be within the suspected contaminated area as well as downwind near the property line.

After defining those site locations which have the highest total vapor/gas readings, personnel monitoring pumps with carbon/Tenax thermal desorption tubes will be run in those areas. The type of collection pumps, media, and flow rates will vary. The initial set-up, however, will consist of a personnel monitoring pump, Tenax thermal desorption tubes with backup tubes operating a t 100cc/min, for sufficnet time to pull a minimum of 5 liters per sample. Initially, AM and PM samples will be collected to establish a base line of data. Sample stations will be within the suspected contaminated area as well as downwind and upwind near the property line.

If contaminants are revealed at the above mentioned sampling stations on the field ~~GC~~ (Century OVA w/Thermal Desorber), additional personnel monitoring pumps will be run with those containing the Tenax thermal desorption tubes. Initially, the additional collection tubes used will be the 100 mg and 600 mg carbon collection tubes pending suspected concentration. Initial collection rate will be 2 liters per minute with a minimum volume of 10-15 liters taken. These samples will be analyzed off-site following the NIOSH Organic Solvents in Air Method No. P&CAM 127 as closely as possible with the option for further ~~GC~~/MS analysis, if necessary.

Additional air sampling will be dependent on the data obtained from ~~this~~ h.nu/ova readings sampling scheme. obtained while handling drums.

EMERGENCY PROCEDURES

In the event of a medical or other emergency, the OSC or his designee will notify the appropriate authority. The following list of phone numbers will be posted prominently at each telephone on-site:

1. Fire 465-5100
2. Ambulance 465-8700
3. Police 574-0255 / 574-1200 (Local Sheriff)
4. Federal Government 1-215-597-9898-
5. State Government 348-5935 WV DNR
6. County/City Government 574-1200
7. EPA Environmental Response Team 1-215-597-9898
8. Hospitals 465-0551
9. Airport 574-1035
10. Poison Info. 1-800-642-3625

USCG/AST

WESTON DESIGNERS CONSULTANTS

BY _____ DATE _____ DIV _____ SHEET _____ OF _____

CHKD BY _____ DATE _____ DEPT _____ W.O. NO. _____

PROJECT Shaffer Electric Immediate Removal

SUBJECT Site Safety Sign In Roster

ORIGINAL (Red)

| AGENCY | NAME | DATE |
|---|---|---|
| TAT | [redacted] | 01/03/85 |
| TAT | | 1/3/85 |
| USCG/AST | D.W. Perkins | 1-3-85 |
| USCG/AST | Michael Baillargeon | 03 JAN 85 |
| | | 1-3-85 |
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| | | 1-3-85 |
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| USCG/AST | | 2-12-85 |
| USCG/AST | | 2-12-85 |
| [redacted] | OHM | 2-14-85 |
| | OHM | 2-14-85 |
| | OHM | 2-14-85 |
| | OHM | 2-14-85 |
| | TAT | 2-14-85 |
| | TAT | 2-16-85 |
| | OHM | 2-14-85 |
| | OHM | 2-14-85 |
| | OHM | 2-14-85 |
| | OHM | 2-16-85 |
| | OHM | 2-17-85 |
| | OHM | 2-17-85 |
| | OHM | 2-17-85 |
| | EPA | 2-19-85 |
| [redacted] | TAT-WESTON | 2-20-85 |
| | OHM | 2-24-85 |

RFW 338-5-81

Agency
EPA

Name
Paula Roth

Date
2/20/85

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| NAME | Co | DATE | |
|---|---|---|---|
| [redacted] | OHM | FEB 27, 85 | [redacted] |
| JAMES EDMONDS | USCG/AST | 3/3/85 | James Edmonds |
| [redacted] | OHM | 3/8/85 | [redacted] |
| [redacted] | OHM | 3/24/85 | [redacted] |

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SITE SAFETY PROTOCOL
SHAFFER EQUIPMENT COMPANY
CERCLA IMMEDIATE REMOVAL PROJECT
U.S. EPA REGION III

ORIGINAL
(Red)

GENERAL

THIS PROTOCOL ADDRESSES THE SAFETY PROCEDURES THAT WILL BE FOLLOWED BY ANY AND ALL PERSONNEL VISITING THE SITE OR INVOLVED IN THE CERCLA REMOVAL ACTIVITY AT THE SHAFFER EQUIPMENT SITE. ALL PERSONNEL ENTERING THE SITE SHALL READ AND SIGN THIS SAFETY PLAN. THE PROTOCOL WILL REMAIN IN EFFECT UNTIL THE OSC CERTIFIES THAT THE ACTIVITY IS TERMINATED. IT DOES NOT SUPERSCEDE ANY FEDERAL, OSHA, STATE OR LOCAL REGULATIONS BUT IS IN ADDITION TO THEM. IN THE EVENT OF A CONFLICT BETWEEN THIS PROTOCOL AND A REGULATION, THE MORE STINGENT OF THE TWO WILL BE IN FORCE. THE PROTOCOL IS IN ACCORDANCE WITH AND REFERS TO THE TERMINOLOGY USED IN THE OFFICE OF EMERGENCY AND REMEDIAL RESPONSE (OERR), STANDARD OPERATING SAFETY PROCEDURES (ATTACHED).

RESPIRATORY PROTECTION PROGRAM

-SITE HAZARDS-

SEE THE ATTACHED SHEETS FOR THE HAZARDS OF PCB'S AND METHANOL.

RESPIRATORY PROTECTION PROGRAM

ALL CONTRACTOR AND GOVERNMENTAL PERSONNEL INVOLVED IN ON-SITE ACTIVITIES SHALL HAVE A WRITTEN RESPIRATORY PROTECTION PROGRAM AND PROVE THAT THEY ARE PHYSICALLY FIT TO WEAR A RESPIRATOR. ALL PERSONNEL WEARING AIR-PURIFYING RESPIRATORS ON-SITE ARE REQUIRED TO BE FIT TESTED, WHILE THOSE WEARING PRESSURE-DEMAND SELF-CONTAINED BREATHING APPARATUS OR AIR-LINE APPARATUS, MUST BE PROPERLY TRAINED AND EXPERIENCED IN THEIR USE. ALL RESPIRATORY PROTECTION EQUIPMENT IS TO BE PROPERLY DECONTAMINATED AT THE END OF EACH WORKDAY.

PERSONS HAVING BEARDS OR FACIAL HAIR MUST NOT WEAR A RESPIRATOR.

TRAINING AND MEDICAL MONITORING PROGRAM

PERSONNEL WILL HAVE EITHER FORMAL TRAINING OR ON-THE-JOB TRAINING FOR THOSE TASKS THEY ARE ASSIGNED TO PERFORM ON THE ACTIVE SITE. ALL UNFAMILIAR ACTIVITIES WILL BE REHEARSED BEFOREHAND.

ALL CONTRACTOR AND GOVERNMENTAL PERSONNEL WHO ARE EXPOSED TO HAZARDOUS LEVELS OF CHEMICALS SHALL PROVE THAT THEY ARE ENROLLED IN A MEDICAL MONITORING PROGRAM.

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GENERAL SAFETY RULES AND EQUIPMENT

A. THERE WILL BE NO EATING, DRINKING, OR SMOKING IN THE EXCLUSION AREA OR HOT SIDE OF THE CONTAMINATION REDUCTION AREA.

B. ALL PERSONNEL MUST PASS THROUGH THE CONTAMINATION REDUCTION AREA TO ENTER THE EXCLUSION AREA.

C. AN EMERGENCY EYE WASH WILL BE ON THE HOT SIDE OF THE CONTAMINATION REDUCTION AREA.

D. AS A MINIMUM, AN EMERGENCY DELUGE SHOWER/SPRAY IS TO BE LOCATED ON THE CLEAN SIDE OF THE CONTAMINATION REDUCTION AREA.

E. AT THE END OF THE WORK, ALL PERSONNEL WORKING IN THE EXCLUSION AREA SHALL TAKE A HYGENIC SHOWER.

F. ALL SUPPLIED BREATHING AIR SHALL BE CERTIFIED AS GRADE D OR BETTER.

G. WHERE PRACTICAL, ALL TOOLS/EQUIPMENT WILL BE SPARK PROOF, EXPLOSION RESISTANT AND/OR BONDED AND GROUNDED.

H. FIRE EXTINGUISHERS WILL BE ON-SITE FOR EQUIPMENT OR PERSONNEL FIRES; AT THE BOILER AREA, METHANOL STORAGE AREA, DIKED AREAS AND CRUSHER UNIT.

I. SINCE SITE EVACUATION MAY BE NECESSARY IF AN EXPLOSION, FIRE, ETC., OCCURS ON SITE, AN INDIVIDUAL SHALL BE ASSIGNED TO SOUND A HORN. FOR EXAMPLE, THE EVACUATION SIGNAL MAY BE TWO LONG BLASTS EVERY 30 SECONDS UNTIL ALL PERSONNEL ARE EVACUATED AND ACCOUNTED FOR. THIS PROCEDURE WILL BE REVIEWED AT EACH MORNING'S SAFETY MEETING. PROPER WARNING SIGNALS SOUNDED BY THE HORN IS EXPLAINED IN THE SITE CONTINGENCY PLAN ATTACHED TO THIS SITE SAFETY PLAN.

J. A FIRST-AID KIT WILL BE ON SCENE AT ALL TIMES DURING OPERATIONAL HOURS. AN OXYGEN INHALATOR RESPIRATOR AND A QUALIFIED OPERATOR WILL BE AVAILABLE. THE LOCATION OF THESE ITEMS ON-SITE WILL BE POSTED.

K. PERSONS HAVING BEARDS OR FACIAL HAIR MUST NOT WEAR RESPIRATORS.

L. NO PARKING OF NON-ESSENTIAL VEHICLES INSIDE OF THE FENCE LINE WILL BE PERMITTED SINCE SAFETY LANES MAY BE OBSTRUCTED.

M. REFUELING OF EQUIPMENT WILL BE DONE ONLY IN PREDESIGNATED AREAS.

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MORNING SAFETY MEETING

A. MORNING SAFETY MEETING WILL BE CONDUCTED EACH DAY FOR ALL SITE PERSONNEL WHO SIGN A DAILY ATTENDANCE SHEET. THE SAFETY PROCEDURES, AND ESCAPE PROCEDURES, AS WELL AS THE DAY'S PLANNED OPERATIONS, SHOULD BE DISCUSSED.

CONTROL AT THE SITE

ACCESS TO THE SITE WILL BE RESTRICTED BY A CONTINUOUS SNOW FENCE INSTALLED DURING THE IMMEDIATE REMOVAL PHASE AT THIS SITE AND EXIT FROM THE SITE SHALL BE THROUGH THE GATE IN THE SNOW FENCE EXCEPT IN A LIFE THREATING EMERGENCY.

ALL PERSONS ENTERING THE SITE SHALL SIGN IN AND OUT AT THE OSC COMMAND POST.

DESIGNATION OF WORK AREAS AT THE SITE

THE ENTIRE SITE WILL BE DIVIDED INTO THREE AREAS: (1) EXCLUSION AREA WHICH KNOWN TO BE OR HAVE A POTENTIAL FOR BECOMING CONTAMINATED. (2) THE CONTAMINATION REDUCTION AREA WHERE DECONTAMINATION OF PERSONNEL AND EQUIPMENT EXITING THE EXCLUSION AREA IS PERFORMED; (3) THE SUPPORT AREA WHICH IS NOT CONTAMINATED.

THE EXCLUSION AREA (EA)

AT THE SHAFFER ELECTRIC SITE, THE EXCLUSION AREA SHALL INITIALLY INCLUDE ALL AREAS INSIDE THE SNOW FENCE.

THE CONTAMINATION REDUCTION AREA (CRA)

THE SHAFFER ELECTRIC SITE, THE CONTAMINATION REDUCTION AREA WILL BE LOCATED IMMEDIATELY OUTSIDE THE ACCESS GATE AND WILL BE DELINEATED BY A BANNER GUARDED AREA.

THE SUPPORT AREA (SA)

AT THE SHAFFER ELECTRIC SITE, THE SUPPORT AREA WILL BE THE AREA OUTSIDE THE SNOW FENCE NOT ROPED OFF.

CHANGES IN DESIGNATION OF WORK AREAS

AS WORK PROGRESSES ON-SITE, THE OSC MAY DETERMINE THAT AN AREA PREVIOUSLY DESIGNATED AN EA IS NO LONGER CLASSIFIED IN THAT MANNER. IT IS NOT INTENDED, HOWEVER TO CHANGE THE DESIGNATION OF THE CRA SINCE THIS MAY INVOLVE THE MOVEMENT OF THE DECONTAMINATION FACILITIES AND ADDED EXPENSE.

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SAFETY PROCEDURES AND LEVELS OF PROTECTION
EXCLUSION AREA

1. ALL PERSONNEL SHALL ENTER AND EXIT THE EXCLUSION AREA THROUGH THE CONTAMINATION REDUCTION AREA.

2. EMERGENCY ESCAPE ROUTES FROM THE EXCLUSION AREA WILL BE ESTABLISHED AND REVIEWED AS APPROPRIATE AT EACH MORNING SAFETY MEETING.

3. ALL PERSONNEL IN THE EXCLUSION AREA SHALL USE THE PROTECTIVE EQUIPMENT DESIGNATED FOR THEIR JOB FUNCTION BUT IN NO CASE SHALL LESS THAN LEVEL C BE USED.

4. ALL PERSONNEL SHALL WEAR HARD HATS AND SAFETY SHOES.

5. A PRE-SET ROUTE FOR EQUIPMENT WILL BE ESTABLISHED FROM THE CONTAMINATED SOIL PILE TO THE PROCESS AREA TO REDUCE THE SPREADING OF CONTAMINANTS.

6. PERSONNEL PERFORMING THE FOLLOWING JOB FUNCTIONS IN THE EXCLUSION AREA WILL UTILIZE THE DESIGNATED LEVEL OF PROTECTIVE EQUIPMENT.

PRIME CONTRACTOR

A. BARREL HANDLING, INCLUDING OPENING, SAMPLING, PUMPING, MOVING, EMPTYING, OR ANY DIRECT OR INDIRECT DISTURBANCE OF A FULL-BARREL WILL BE PERFORMED IN LEVEL B. THIS APPLIES TO ANYONE INVOLVED, INCLUDING EQUIPMENT OPERATORS.

B. SOIL TRANSFERRING OPERATIONS WILL BE PERFOMED IN NO LESS THAN LEVEL C.

C. LEVEL B APPEARS TO BE APPLICABLE FOR USE BY PERSONNEL OPERATING, OR IN CLOSE PROXIMITY TO, THE EXTRACTOR.

D. INITIAL START UP ACTIVITIES OF THE SOLVENT EXTRACTION SYSTEM WILL BE PERFORMED IN LEVEL B. AS IT IS DETERMINED THAT THE UNIT IS PROVED TO BE A CLOSED SYSTEM, THE LEVELS OF PROTECTION MAY BE DOWNGRADED TO LEVEL C AS APPROVED BY THE SITE SAFETY OFFICER.

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CONTAMINATION REDUCTION AREA

1. PERSONNEL AND EQUIPMENT DECONTAMINATION WILL BE PERFORMED IN LEVEL C AS DESCRIBED IN EPA'S STANDARD OPERATING PROCEDURES AND IN THE ERCS CONTRACT. ANY DEVIATIONS FROM THESE PROTOCOLS MUST BE APPROVED BY THE SITE SAFETY OFFICER.

2. ALL PERSONNEL ENTERING THE CRA WILL UTILIZE A MINIMUM OF LEVEL C PROTECTION.

3. ALL PERSONNEL ENTERING THE CRA MUST DECONTAMINATE.

4. ALL EQUIPMENT ENTERING THE CRA MUST BE DECONTAMINATED PRIOR TO LEAVING THE CRA.

SUPPORT AREA

1. NO CONTAMINATED EQUIPMENT OR PERSONNEL MAY ENTER THE SUPPORT AREA.

2. EXCEPT IN THE CASE OF A RELEASE OF METHANOL LEVEL D WILL BE APPROPRIATE FOR ALL PERSONNEL IN THE SUPPORT AREA.

3. EMERGENCY ESCAPE ROUTES AND PROCEDURES FOR THE SA WILL BE ESTABLISHED AND REVIEWED AT EACH MORNINGS SAFETY MEETING

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DECONTAMINATION PROTOCOL

ALL EQUIPMENT AND PERSONNEL ENTERING THE SITE MUST BE THOROUGHLY DECONTAMINATED PRIOR TO LEAVING THE GATE. SINCE THERE ARE VARIOUS PROTOCOL AND EQUIPMENT AVAILABLE FOR THIS PURPOSE, THE OSC WILL DETERMINE IF THE PROPOSED DEECONTAMINATION TECHNIQUES ARE APPLICABLE. SUCH DETERMINATIONS WILL BE MADE ON A DAY TO DAY BASIS AS ON SITE OPERATIONS DICTATE.

Douglas P. Fox

DOUGLAS P. FOX
SITE SAFETY OFFICER
USCG/AST

ROBERT E. CARON, OSC
EPA REGION III
PHILADELPHIA, PA.

ORIGINAL
(Red)

Emergency procedures

In the event of a medical or other emergency, the OSC or his designee will notify the appropriate authority. the following list of phone numbers will be prominently posted at each telephone on-site:

1. FIRE 465-5100
2. AMBULANCE 465-8700
3. POLICE 574-0255 / 574-1200
4. FEDERAL GOVERNMENT 1-215-597-9898
5. STATE GOVERNMENT 1-348-5937
6. COUNTY/CITY GOVERNMENT 574-1200
7. EPA ENVIROMENTAL RESPONSE TEAM (ERT) 1-215-597 9898
8. HOSPITALS 465-0551
9. AIRPORT 574-1035
10. POISON INFO. 1-800-642 3625

SHAFFER EQUIPMENT COMPANY SITE
MINDEN, WEST VIRGINIA

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CONTINGENCY PLAN

## I. MINOR SPILL OF METHANOL

Any person detecting a spill of methanol should immediately inform the decon area so an alarm (ONE 3-SECOND BLAST) can be sounded and proper personnel notified.

1. ERCS Response Manager will take corrective actions.
2. Air Monitoring Officer will institute the Air Monitoring Plan.
3. The OSC and Site Safety Officer are to be kept informed.

## II. MINOR FIRE

Any person detecting a fire on site should immediately notify the decon area so an alarm (TWO 3-SECOND HORN BLASTS) can be sounded and proper personnel notified.

At least TWO persons should respond with fire extinguishers that will be strategically placed on site. A minor fire should be extinguished with an extinguisher- if not, it will have to be dealt with as a major fire.

Exposures may need to be protected. A water spray may be considered for protecting the methanol storage tanks and other high risk areas.

The OSC will notify the local fire department via portable radio. When the fire department arrives on scene, all firefighting efforts will be directed by their senior official.

## III. MAJOR SPILL OF METHANOL

In the event of a major spill of methanol an alarm at the decon area will be sounded (THREE 3-SECOND HORN BLASTS). The site will be cleared of all nonessential personnel using the emergency escape routes. All personnel will meet at a predesignated point.

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1. ERCS Response Manager will take corrective actions, i.e.:
   a. Foam area.
   b. Control all ignition sources.
   c. Water spray high hazard areas if warranted.
   d. All nonessential personnel will be off-site.
2. Air Monitoring Officer will institute the Air Monitoring Plan.
3. The OSC and Site Safety Officer are to be kept informed.

## IV. MAJOR FIRE

In the event of a major fire on the site an alarm will be sounded (FOUR 3-SECOND HORN BLASTS). The site will be cleared of all nonessential personnel using the predesignated escape routes. All personnel will meet at a predesignated point.

If possible, all diked areas will be foamed.

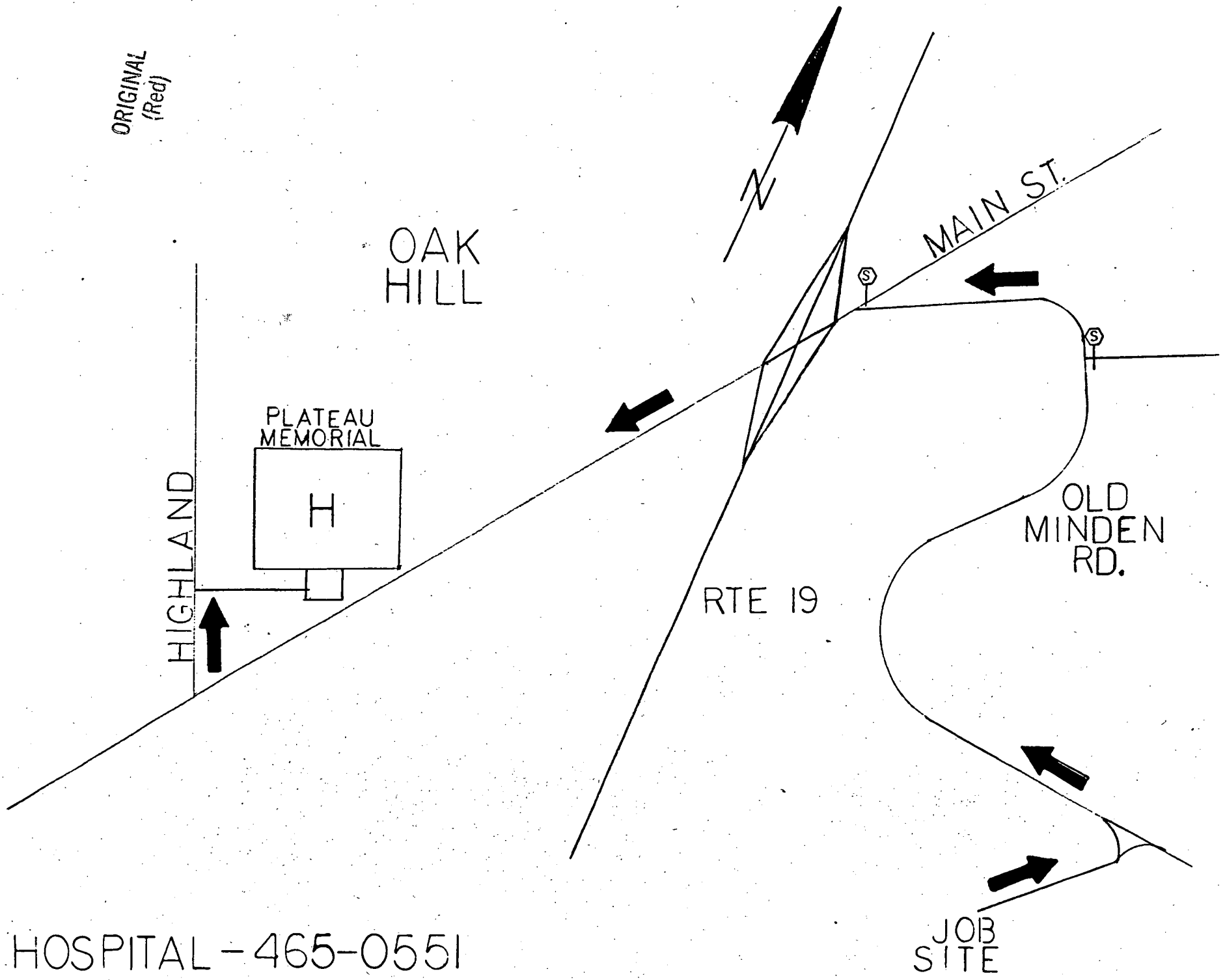
The OSC will notify the local fire department via portable radio. When the fire department arrives, all firefighting efforts will be directed by their senior official.

## V. ON-SITE EVACUATION

This will be the OSC's decision.

## VI. MEDICAL EMERGENCY

Personnel will be decontaminated prior to being transported to hospital if possible.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JOB
SITE
HOSPITAL - 465-0551

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# Description of Methanol Hazards

Methanol is an unusual product. The flammable limits are wide, 6.0% to 36% by volume in air, with a closed cup flashpoint of 54°F and an open cup flashpoint of 61°F. Vapor density is 1.11 (air=1) and the liquid specific gravity is 0.79. Methanol will mix with water at all concentrations. Methanol is toxic by all modes of exposure. The TLV is 200ppm with an STEL of 250ppm with a "skin" notation. Chronic methanol exposure affects the optic nerve and often results in blindness. Exposure to concentration of methanol in excess of the TLV is apparently cumulative. Exposure to high concentrations can be immediately fatal - the normal route of exposure to methanol is by ingestion by persons who mistake methanol for ethanol.

Methanol vapors burn with a barely discernable flame which may not be visible in bright daylight. Methanol can form explosive concentrations in the air, and electrical equipment must be suitable for use in NFPA Class I, Division 1, Group D atmospheres, Methanol is classed by the NFPA as a Class 1B flammable liquid.

Extinguishing agents for methanol consist of a fine water spray, dry chemical, and alcohol or universal foam such as National Foam's Universal Foam.

Exposure to high methanol vapor concentrations causes eye irritation, headache, fatigue, and drowsiness. This effect is temporary. Exposure to extremely high vapor concentrations leads to unconciousness and death. Exposure to liquid mehtanol on the skin can cause smarting and reddening of the skin. Methanol can be absorbed through intact skin. Anyone receiving a splash of methanol in the eyes or on the skin should flush with water for 15 minutes.

Methanol has an odor threshold of about 100ppm (for most people) with a faintly sweet alcohol smell. The liquid is water white.

If methanol tanks are involved in a fire, the danger of explosion should be considered. Exposed tanks should be cooled with a water spray.

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# Description of PCB Hazards

Acute human exposure to PCBs have been found to cause dermatitis in the form of chloracne (both whiteheads and blackheads) as well as darkening of areas of the skin from hyperpigmentation. These manifestations occur from 2 to 4 months following exposure and gradually disappear. Massive exposures have initiated chronic cases of chloracne at the areas of exposure. Chronic exposure can cause liver dysfunctions of varying degrees along with the noted skin conditions. PCBs can present a health hazard by inhalation and skin contact. PCBs are not extremely volatile and inhalation hazards are not likely unless the material is volatized by spraying or dust bearing PCB contamination is blown about. The TLV of PCBs from the ACGIH 1984-85 guide is 1 mg/m3 for 54% chlorine with a "skin" notation at both levels, PCB concentrations at this site varied from a high in the 20% by weight-range (260,000ppm) at one "hot spot" to non-dectable. Average PCB concentration in the contaminated dirt pile is in the 500ppm range.

This hazard is very easily protected against by a Tyvek suit for dry material and a Saran suit for wet material and an air purifying respirator with a combination organic vapor - air filtering cartridge (either AO R563 or AO R53HE cartridge). Personal hygiene is extremely important and personnel whould shower daily using strong soap as well as donning clean clothes daily.

# EMERGENCY CODES

ORIGINAL (Red)

## I. MINOR SPILL OF METHANOL

A. 1 THREE SECOND BLAST ON ALARM.

## II. MINOR FIRE ON-SITE

A. 2 THREE SECOND BLASTS ON ALARM.

## III. MAJOR SPILL OF METHANOL

A. 3 THREE SECOND BLASTS ON ALARM.

## IV. MAJOR FIRE ON-SITE

A. 4 THREE SECOND BLASTS ON ALARM.

ORIGINAL
(Red)

MINDEN WEST VIRGINIA
PROCESS SITE AIR MONITORING

GENERAL

The PCB process area and methanol storage area will be monitored for methanol air concentrations for both industrial hygiene and flammability purposes. The standard industrial hygiene instrument will be the HNu photoionization detector with 10.7 or 12.2ev lamp.

The odor threshold of methanol is about 100ppm. The TLV and PEL is 200ppm with an STEL of 250ppm. The lower limit of flammability is 60% by volume (60,000ppm) with the flashpoint of 54 degrees F (closed cup) and 61 degrees (open cup). action levels for methanol are established as follows:

0 - 100ppm - no respiratory protection required.
50 - 1,000ppm - air purifying respirator with organic vapor cartridge(R53HEorR563 stacked cartridge recommended).
) 1,000ppm - breathing air required.

* Note that since the odor threshold of methanol is 100ppm, when methanol can be detected by smell, the individual should don a respirator.

INDUSTRIAL HYGIENE MONITORING

Air sampling will be done on an hourly basis with the HNu PID within the process area and methanol storage area at upwind, downwind, and crosswind locations. A sampling grid will be established in the worksite prior to commencing processing. All methanol readings shall be logged in an air monitoring log indicating sample locations, time/date, approximate wind direction, person sampling, and any pertinent actions as indicated from the action levels.

FLAMMABILITY MONITORING

For flammability purposes, readings of 10% LEL (6,000ppm) shall be considered as indicative that a methanol leak has occuredand the situation immediately investigated and a remedy applied. Thus the Action Level for flammability is established at 10% LEL (6,000ppm). At a reading of 50% LEL (30,000ppm) the Oak Hill Fire Department should be notified.

Additionally, hourly readings shall be taken at fixed locations (to be established) within the process area using a Model 260 MSA combination O2/LEL meter. At least eight sampling points should be established at likely locations for leaks or vapor releases. Special attention should be paid to the condensor vapor exhaust and clean dirt pile. All readings should be logged as indicated above for industrial hygiene measurements.

Once each day all process and methanol transfer piping should be checked with the O2/LEL meter, again logging information.